EXHIBIT A

Ernest J. Koeberlein
Masters: Criminal Justice / Digital Forensics
EnCE, CCE, CISSP, CHFI, CEH, CBE, GCFE, iVe, GPS, CCLO/CCPA

IncidentResponse.us: A Digital Forensic Laboratory of Excellence
710 S. Myrtle Ave., #300 / Monrovia, CA 91016
(888) 330-5550

Curriculum Vitae of Ernest J. Koeberlein

Expertise Summary

Call Detail Records / Cell Site Location Analysis	Cell Phone / Mobile Device Forensics
Computer Forensics	Google Location Services Mapping
Vehicle Infotainment / Navigation Systems	GPS Technology & Mapping
Surveillance Video DVR Preservation & Recovery	Certified Telecommunications Subject Matter Expert

Work Experience

NASA / Jet Propulsion Laboratory (JPL)	Employee / Contractor	1985 - 2015
Raytheon: Mission & Operations Services / DSIO	Chief of IT Security	2006 - 2015
ITT Technical Institute: School of Criminal Justice	Adjunct Instructor: Computer Forensics	2011 - 2012
IncidentResponse.us	CEO & Senior Digital Forensic Examiner	2008 - Present

College Education

Bachelors of Science: Majoring in Physics	Allegheny College	1989
Masters of Arts in Criminal Justice: Majoring in Digital Forensics	DeSales University	2011
GPA 4.0: Top of class		
ΑΦΣ National Criminal Justice Honors		

Pre-Qualified Appointments

County of Los Angeles Superior Court Panel of Expert Witnesses			
	Computer Forensics	Cell Phone Forensics	GPS Mapping & Analysis

Qualified As Expert Witness At

United States District Court: Central District of California	
State of California, State Personnel Board	
Superior Court of California, County of Los Angeles	
Clara Shortridge Foltz Criminal Justice Center	Compton Courthouse
Inglewood Courthouse	Pomona Courthouse
Torrance Courthouse	Van Nuys Courthouse
Eastlake Juvenile Court	
Superior Court of California, County of Orange	
Santa Ana Courthouse	
Superior Court of California, County of Riverside	
Indio Courthouse	
Riverside Hall of Justice	
Superior Court of California, County of San Bernardino	
San Bernardino Justice Center	
Rancho Cucamonga District Court	

Certification & Licenses Summary

(For more details see Certification & Licenses Detail section)

EnCase Certified Examiner (EnCE)	Certified Computer Examiner (CCE)
Certified Information Systems Security Professional (CISSP)	CompTIA Security+ Certification
California Private Investigator License (CA PI #27470)	Computer Hacking Forensic Investigator (CHFI)
Certified Cellebrite Mobile Phone Forensic Investigator	EC-Council Certified Ethical Hacker (CEH)
Mobile Phone Seizure Certification	Certified Cellebrite Advanced Smart Phone Forensic Investigator
Cellebrite Certified Logical Operator (CCLO)	Blackthorn / GPS Certification
Cellebrite Certified Physical Analyst (CCPA)	Certified BlackLight Examiner (CBE)
GIAC Certified Forensic Examiner (GCFE)	X1 Social Discovery
Vehicle Forensics Certification (iVe)	DVR Examiner Certified User
Cellebrite Drone Data Analysis	NW3C Certified Cyber Crime Examiner
FAA Part 107 Licensed sUAS Pilot	Celebrite Certified Operator (CCO)
Certified Telecommunications Network Specialist (CTNS)	Certified Wireless Analyst (CWA)

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Certified Forensic Explorer Examiner	NW3C Certified Cyber Crime Examiner
NW3C Certified Cyber Crime Investigator (3CI)	Certified VoIP Analyst (CVA)
Certified Telecommunications Analyst (CTA)	Certified Telecommunications Subject Matter Expert (CTSME)
Certified Vehicle System Forensic Technician (CVST)	Certified Vehicle System Forensic Examiner (CVSE)

Professional Memberships, Organizations, & Task Forces Summary

Los Angeles FBI Citizens' Academy Alumni Association
Federal Bureau of Investigation Infragard
United States Secret Service/Department of Homeland Security: Electronic Crime Task Force, Los Angeles
United States Secret Service/Department of Homeland Security: Los Angeles Cyber Fraud Task Force
International Association of Computer Investigative Specialists (IACIS)
International Association of Computer Investigative Specialists (IACIS) Research and Development Subcommittee
International Society of Forensic Computer Examiners (ISFCE)
Institute of Electrical and Electronics Engineers (IEEE)
IEEE - Aerospace and Electronic Systems Society
IEEE - Antennas and Propagation Society
IEEE – Computer Society
IEEE – Vehicular Technology Society
IEEE – Standards Association (IEEE-SA)
ASTM International: Committee E30 on Forensic Sciences
ASTM International: Subcommittee E30.12 – Digital and Multimedia Evidence
International Information Systems Security Certification Consortium (ISC)[2]
Espionage Research Institute International (ERII)
Association of Court Panel Investigators
California Attorneys for Criminal Justice (CACJ)
National Defender Investigator Association (NDIA)
International Association of Cyber & Economic Crime Professionals (IACECP)
National Association of Criminal Defense Lawyers
The Association of Digital Forensics, Security, and Law (ADFSL)
ΑΦΣ National Criminal Justice Honors Society
Association of Certified Fraud Examiners (ACFE)
Criminal Courts Bar Association
International Crime Scene Investigators Association
American Bar Association
Los Angeles County Bar Association
San Bernardino County Bar Association
Armed Forces Communications & Electronic Association (AFCEA)
Law Enforcement and Emergency Services Video Association International, Inc. (LEVA)
Airborne Law Enforcement Association (ALEA)
Federal Bar Association

Digital Forensic Related Training/Seminars

Vehicle System Forensics Course (refresher)	2021	40 hours
How to Write a Bulletproof Expert Witness Report	2020	14 hours
How to Be An Effective Expert Witness	2020	14 hours
Forensic Analysis and Authentication of Digital Images: National Center for Media Forensics	2020	16 hours
Video Evidence Training Symposium	2020	16 hours
Techno Security & Digital Forensics Conference: San Diego, CA	2020	24 hours
GPS Operation for Engineers & Technical Professionals	2019	32 hours
Myth & Realities of Cell Site Coverage Areas by Hawk Analytics	2019	2 hours
MPLS and Carrier Networks	2019	8 hours
IP Networks, Routers and Addresses	2019	8 hours
Ethernet, LANs and VLANs	2019	8 hours
The OSI Layers and Protocol Stacks	2019	8 hours
Wireless Telecommunications	2019	8 hours
POTS and The PSTN	2019	8 hours
Cellebrite Certified Operator / Physical Analyst (refresh)	2019	40 hours
Forensic Explorer Certified Examiner Certification Class (refresh)	2018	32 hours
Vehicle Forensics & iVe Certification (refresh)	2018	40 hours
Cellebrite Drone Data Analysis (CDDA) Course	2018	24 hours
Techno Security & Digital Forensics Conference (San Antonio)	2018	24 hours
Advanced Mobile Forensic Analysis with Python	2018	40 hours

Course	Year	Hours
2nd Annual Cellebrite Americas User Forum	2018	8 hours
Paraben Forensic Innovations Conference	2018	24 hours
Part 107 Test Prep: Dart Drones	2018	8 hours
Drone Pilot Training: Dart Drones	2018	8 hours
Scientific Working Group on Digital Forensics/SWGDE (New Brunswick)	2018	32 hours
Complete Forensic Video Acquisition and Processing	2018	40 hours
Forensic Explorer Certified Examiner Certification Class	2018	32 hours
Python for Advanced Mobile Forensic Analysis	2018	40 hours
Scientific Working Group on Digital Forensics/SWGDE (Houston)	2018	32 hours
DVR Examiner User Certification	2017	24 hours
Preparing for Lab Accreditation	2017	36 hours
Scientific Working Group on Digital Forensics/SWGDE (UCLA)	2017	8 hours
GeoTime Call Detail Records Processing Training	2017	8 hours
Real Time Cell Phone Investigations	2017	16 hours
OCDLA / CACJ Criminal Justice Seminar	2017	8 hours
OCDLA / CACJ Criminal Justice Seminar	2016	8 hours
Enfuse Conference 2016	2016	20 hours
SANS FOR585:Advanced Smartphone Forensics	2015	36 hours
CEIC Conference 2015	2015	20 hours
Cell Data and Mapping-Police Technical @ WSIN	2015	16 hours
GetData Forensics: Forensic Explorer Examiner	2015	24 hours
Mobile Forensics World 2014	2014	36 hours
SANS FOR518: Mac Forensic Analysis	2014	36 hours
Vehicle Forensics & iVe Certification	2014	24 hours
SANS FOR408: Windows Forensic Analysis	2014	36 hours
BlackLight Tool Training (Mac OSX/iOS)	2014	16 hours
Cellebrite Mobile Device Examiner (CCLO/CCPA) Course	2014	24 hours
GPS Forensics	2014	24 hours
2014 PICA Annual Education Conference	2014	16 hours
Cell Call Detail Record Analysis & Cell Tower Mapping	2013	16 hours
Cellebrite Advanced Smart Phone Extraction	2013	32 hours
Open Source Intelligence Training	2012	8 hours
Cellebrite Logical and Physical Cell Phone Extraction	2012	40 hours
Graduate Class Forensic Science & the Courtroom	2011	12 weeks
Graduate Class Computer Hacking Forensic Investigation	2011	12 weeks
Graduate Class Hacking Countermeasures & Techniques	2011	12 weeks
Graduate Class Advanced Topics in Digital Forensics	2011	12 weeks
Graduate Class Issues in Criminal Law, Procedure, Justice	2011	24 weeks
Graduate Class Ethical Hacking Techniques	2011	12 weeks
Graduate Class Computer Forensics	2010	18 weeks
Information Systems Security Review Training	2010	70 hours
Graduate Class Network Forensics	2010	12 weeks
GSI/Encase: Computer Forensics 1	2009	32 hours
GSI/Encase: Advanced Computer Forensics	2009	32 hours
GSI/Encase: Network Intrusion Investigations	2009	32 hours
GSI/Encase: Field Intelligence Network Forensics	2009	32 hours
GSI/Encase: Computer Forensics 2	2009	32 hours
GSI/Encase: Advanced Internet Examinations	2009	32 hours
GSI/Encase: EnScript Programming	2009	32 hours
GSI/Encase: EnCE Prep	2009	24 hours

FBI / Infragard Training

FBI Citizens Academy: Class of 2011
FBI Joint Regional Intelligence Center – Pre Incident Indicators
FBI Joint Regional Intelligence Center Liaison Officer Training
FBI/Orange County Sheriff's – Passive Interview & Deception Detection
FBI/Naval Postgraduate School - Center for Asymmetric Warfare Cyber Attack & Security Exercise

Career Related Awards

SAN's Lethal Forensicators Unit Coin

○ "*The Coin, Round Metal Object (RMO), is designed to be awarded to those who demonstrate exceptional talent, contributions, or helps to lead in the digital forensics profession and community. The Coin is meant to be an honor to receive it; it is also intended to be rare. Those who join the Lethal Forensicators Unit will have all privileges and recognition*"

NASA Class 1 New Technology Disclosure Award
Voyager 2 Project Neptune Encounter Mission Award
NASA Achievement Award: Voyager Flight Team, Neptune Encounter
NASA Achievement Award: Multimission Operations System Office Support Team
NASA Achievement Award: Voyager Flight Team, Uranus Encounter
NASA Achievement Award: Ulysses Mission Design and Ops Engineering Team
Raytheon: Outstanding Performance Contribution Award (7 times)
Raytheon: Security Technology Award (2 times)
Raytheon: Extraordinary Contribution Award (5 times)

Digital Forensics Awareness Training Given To:

Los Angeles County Association of Court Panel Investigators	2014
California Association of Licensed Investigators, Riverside County District	2014
The Law Offices of the Los Angeles County Public Defender: Compton	2015
The Law Offices of the Los Angeles County Public Defender Investigators	2015
The Law Offices of the Los Angeles County Public Defender: Norwalk	2017
The Law Offices of the Los Angeles County Public Defender: CCB	2017
The Law Offices of the Los Angeles County Public Defender: Airport	2017
The Beverly Hills Bar Association, Family Law Section, Study Group	2018
The Law Offices of the Los Angeles County Public Defender: Compton	2018
The Law Offices of the Los Angeles County Public Defender: Metropolitan	2019
The Law Offices of the Los Angeles County Public Defender: Metropolitan	2020

Security DVR DVR Recovery Awareness Training Given To:

High Tech Crime Investigators Association (HTCIA): Southern California Chapter	2019

Continuing Education, Seminars, Workshops type Training

Examining GPS Devices Using EnCase / Guidance Software Inc.
File Recovery using Hash Block Map Analysis / Guidance Software Inc.
Protecting Your Assets in a Virtual Culture / FBI / University of Southern California
Understanding Assets and the Virtual Culture / Dr. Blaine Burnham / USC
Cross-Examining Expert Witnesses / Traci Owens
Using Technology in the Courtroom / Cris Arguedas & Chris Ritter
NAS & the State of Scientific Evidence / Professor Edward Imwinkelried
Analyzing Audio & Video Evidence / James Griffin
Case Study: State v Fausto: Bias & Uncertainty in the Quest for Justice / Ted Vosk
Cellular Phone Evidence: Data Extraction & Documentation/ Det. Cindy Murphy
Decoding Windows Prefetch / James Habben / Guidance Software Inc.
Email Investigations with EnCase v7 / Manfred Hatzesberger / GSI
The Attorney / Private Investigator Relationship / David Queen, Esq.
Computer Forensics: A Criminal Defense Perspective / Kevin Ripa
Evaluating and Challenging Forensic Identification Evidence / Professor M. Saks
Ares and Lime Pro Peer to Peer File Sharing Software Analysis
Ubiquity Forensics – Your iCloud and You
Trademark Infringement and Piracy/ Kris Buckner
Using the Web to Investigate Government Experts / Richard Demarest, JD
Windows 8 Forensic Artifacts / Guidance Software Inc.
The Scientific Method: Defending Your Case with Superior Science / Andrea Roth
Internet & Mobile Forensics with Internet Evidence Finder / Jad Saliba
Vehicle Infotainment Systems and the Data They Store / Ben LeMere
Admissibility: Getting Defense Science to the Jury / Judge Roderick Kennedy
Cognitive Bias / William C. Thompson
Protecting Proprietary Information / Raytheon Company
Mac Essentials and the HFS+ File System / Sarah Edwards / SANS Institute
OSX Advanced Analysis Topics / Hal Pomeranz / SANS Institute
Windows Digital Forensics and Advanced Data Triage
Email Forensics

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Web Browser Forensics
Legal and Technology Developments
Anti-Anti-Forensics in Action / SANS Institute
Intellectual Property Theft: Tracking the Bits and Bytes
New Advances in Digital Forensics
Writing Expert Reports and Providing Expert Testimony
Integrating GPS Analysis into Digital Investigations
United States Secret Service: Electronic Crime Task Force Quarterly Meeting 2017.1
Cybersecurity and the Internet of Things (IoT) / Ernst Young
Artifacts in the Cloud and the Impact on Forensics / Tayfun Uzun
From Intake to Court: Using Case Management to Stay on Track
Issues trending in algorithms, computer code and IP law in the Crim Justice System
Live Memory Forensics/ High Technology Crime Investigation Association
EnCase v7 Evidence Processor / Guidance Software Inc.
Security for Critical Infrastructure and Other Federated Systems / Dr. B Clifford / USC
Carpe Datum… Seize the Data: Computer Forensics Evidence / Rick Albee
Investigating Crime Labs / Jennifer Friedman
Effective Use of Data Forensics / Aaron Hughes
Using Online Technology in Your Investigation / William Gallagher
Finding, Funding, and Using an Expert / Steve Benjamin
Investigating the Government's Forensic Investigation / Dr. Federic Whitehurst
Collection and Analysis of RAM / Michael Webber / BitSec Global Forensics
Corporate Investigations / Jimmy Doyle / VP, Corporate Investigations, Prudential
Big Brother Forensics / Chad Tilbury / SANS Computer Forensics & e-Discovery
Cellular Forensics: People, Rumors, and the Actual Facts / Kevin Ripa
Pre-Trial Hearings & Discovery to set the stage for Persuasive Use of Experts
Crossing the State's Expert: Reasonable Doubt with a Well-Crafted Cross
Windows ShellBag Forensics in Depth
The Battle for iCloud: Over-the-Air Forensics vs. Apple's Two-Factor Authentication
The Lessons of Science: What Lawyers and Judges need to know / Alan Gold
Going Behind the Lab Report & into the Lab: What Labs Don't Want You to Know
Forensic Audio & Video Enhancement / Doug Carner
Comprehensive & Comprehensible Discovery for a Scientific Defense / Lauri Traub
Dealing With Persistent Smartphone Forensic Challenges / Ronen Engler / Cellebrite
Preparing to Testify About Mobile Evidence in Court / Buddy Tidwell
The Ethics of Dealing with Experts / Marty Pinales & Scott Bresler
Preparing Your Jury for Science: Voir Dire and the New ABA Standards / Lisa Wayne
Export Controls: Military Products (ITAR) / Raytheon Company
OSX User, System, and Local Domain File Analysis / Sarah Edwards / SANS Institute
iOS Forensics / Domenica Crognale / SANS Institute
Registry and USB Device Analysis
Windows Artifact and Log File Analysis
Advanced Skip Tracing Tools
Audio / Video Enhancement Workshop
Filesystem Journaling Forensics
The Design and Characteristics of Location Reporting Technologies
Convergence Forensics: Leveraging Multiple Skills to Analyze Evidence
Cloud Collections
Forensic Analysis of CCTV DVRs
Lessons Learned from Incident Response / Ernst & Young
US v. Roman Seleznev USSS Case Study / United States Secret Service – Electronic Crimes Task Force
Drone Forensics 101: Extracting & Examining Data from Drones
Pushing the cloud: Issues trending with Government Malware, location privacy, social media / Hanni Fakhoury
Recent Developments & Emerging Issues in Electronic Search and Seizure / Honorable Bronson James
Challenges and Changes in the User of Digital Evidence / Cellebrite
Access Digital Evidence Faster using Emergency Download Mode / Cellebrite
25 Steps to Launch Drones in Public Safety
An Introduction to Part 107 and Preparing for the Exam
Cryptocurrency Investigations / United States Secret Service – Electronic Crimes Task Force
Recent Developments in Electronic Evidence Investigations / United States Secret Service – Electronic Crimes Task Force
PFIC Conference IoT Forensics Panel
Using Paraben's E3 with Python, Chet Hosmer, Python Forensics
Map All The Things: Geolocation for Mobile-Forensics Practitioners, Kim Thomson, H-11
IoT Data on Integrating Hubs, Amber Schroader, Paraben
Automating Packet Analysis with Python, Joe McManus, University of Colorado at Boulder
Accessing MaliciousUSB Devices, James Habben, Verizon VTRAC

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Critical change to Mac & iOS devices that investigators need to know, Derrick Donnelly, BlackBag Technologies
IoT Wireless Network Forensics, Michael Raggo, 802 Secure Inc.
Damaged Device Forensics, David Rathbone, VTO Labs
The Business Challenges in Digital Forensics, Andy Cobb, One Source Discovery
Apple File System Imagin & Analysis Considerations for Forensic Examiners, Sumuri LLC
New Threats from Above: A look at How Unmanned Aerial Vehicles (UAV) are being utilized in Crimes, Cellebrite
Traces from the Cloud: Forensic Analysis of Cloud Storage, Digital Intelligence
Drone Data Extraction, Decoding, Analysis. What happens when a UAV is involved in your Investigation, Oxygen
Wi-Fi Reconnaissance and Investigations: How to be a Superhero with X-ray vision, Duff & Phelps
Mobile Acquisition Uncovered: The Past, Present, and Future of Mobile Device Investigations, Magnet Forensics
"Shh… Alexa is Listening" A security look at Voice-Based Assistants, VATG Inc.
Acquiring Data of the Internet of Things, VTO Labs
Carpenter vs. USA: Impacts to Historical Call Detail Records, Honorable Mark J. McGinnis
Myths and Realities of Cell Site Coverage, Hawk Analytic
Call Detail Records: Best Practices for Legal Requests
Berla iVe Live Community Hangout (December 2019)
Gas Pump Skimming: Anatomy of the Scheme
Berla iVe Live Community Hangout (January 2020)
National White Collar Crime Center: Gas Pump Skimming
National White Collar Crime Center: What Might Your Forensic Acquisitions Be Hiding?
Berla iVe Live Community Hangout (February 2020)
National White Collar Crime Center: Checkm8 & CheckRa1n: New Tools for iOS Extractions
Collection, Preservation, and Analysis of Digital Video Evidence
Tips and Tricks with Blacklight 2019R3
Cloud data methods for capture
macOS Forensic Artifacts and Techniques that are Essential for Mac Investigatinos
New Data Types in eDiscovery & Forensics
A Forensic Look at Windows 10 Timeline Using SQL Queries to Exploit the Data
Fake or Genuine? Forensically Authenticating Emails
Macquisition Triage and Live Collection
Digital Evidence from Social Networking Sites & Smartphone Apps
Digital Video Evidence: The Quest for Accuracy and Competence
CCleaner – Is this tool the end of Forensic Investigations As We Know it?
Investigating Fake Digital Photos
Berla iVe Live Community Hangout (March 2020)
Berla iVe Vehicle Forensics Essentials Series: Series Introductions
National White Collar Crime Center: Legal and Investigative Implications of Emojis
BlackBag Technologies: "Ask the Experts: A Deep Dive into Keychain and Spotlight Artifacts"
Berla iVe Vehicle Forensics Essentials Series: System Identification
National White Collar Crime Center: Surviving and Thriving in the Court Room
Berla iVe Vehicle Forensics Essentials Series: Acquisition Overview
Berla iVe Vehicle Forensics Essentials Series: Analysis Overview
Hawk Analytics: Tower Dumps: 3 Analysis Methods to Add Value to your Case
Berla iVe Vehicle Forensics Essentials Series: Analysis Workflows
Berla iVe Live Community Hangout (April 2020)
Hawk Analytics: Carrier Breakdown: Sprint
Berla iVe Vehicle Forensics Essentials Series: Analysis of Event Data
Berla iVe Vehicle Forensics Essentials Series: Understanding Vehicle Networks
Berla iVe Live Community Hangout (May 2020)
Berla iVe Live Community Hangout (June 2020)
Hawk Analytics: Carrier Breakdown: Verizon
Calculating Accurate Timing from Video
Conducting a Video-Centric Investigation
DVR Evidence Recovery – The Good, the Gad, the Ugly
Legal Issues and Trends Related to Video Admissibility
More than Meets the Eye
Digital Evidence in Criminal Cases before the U.S. Courts of Appeal: Trends and Issues for Consideration
Physical Acquisition and Analysis of T2 Protected Macs
What Digital Breadcrumbs Are You Broadcasting
Hawk Analytics: Carrier Breakdown: T-Mobile
FBI: Cyber Threats: Not If, But When
NACDL: When the Government Uses Social Media to Prosecute Your Client
US Secret Service Cyber Fraud Task Force: Western Regional Quarterly Meeting: Aug 2020
Berla iVe Live Community Hangout (August 2020)
Hawk Analytics: Carrier Breakdown: AT&T
SANS: How to Correctly Interpret Evidence from Smartphone Data

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Berla iVe Release Webinar (September 2020)
Berla iVe Live Community Hangout (September 2020)
Exploring New Features with BlackLight 10.2
Berla iVe v3.1 Release Webinar
Modeling and Simulation of 5G Antenna System Innovations
NW3C Spotlight – Forensic Goldmine in iOS and macOS
Hawk Analytics: Best Practices for Call Detail Record Testimony
Ensure 5G Systems Integrity by Using Multiphysics Analysis of Chips, Packages and Systems
Cellebrite: I Beg to DFIR – If you can't extract it, capture it
More than a Makeover: MacQuisition is now Digital Collector
Berla iVe Live Community Hangout (December 2020)
Linux Forensics and Why It's Important
Hemisphere & Stingray Devices
Forensics in Peer-to-Peer Sharing and Associated Litigation Challenges
GPS & Cellphones
Cell Towers: The Science & The Law
A Lawyer's Guide To Understanding Mobile Forensics
Body-Worn & Squad Car Cameras: Attacking the Tech and Use in Motions to Suppress
Practical and Tactical Tips for Using Technology to Improve Your Cross-Examination
Cross-Examination of the State's Expert in GPS Cases
Berla iVe Live Community Hangout (January 2021)
NW3C Webinar: Future of Preserving Digital Forensics
Berla iVe Live Community Hangout (February 2021)
Berla iVe Live Community Hangout (March 2021)
Video Investigation Units – How the Media is Leveraging Open Source Intelligence to Conduct Forensic Video Examinations
Civilian Oversight: The Influence of Video on Public Perception
Video Examination and Admissibility in the Courtroom – Are you an Expert?
Fusion of 3D Technologies and Imagery
Advancements in Technology for Calculating Speeds
From Expert to Expert Witness – A Defense Attorney's Perspective
Defending Against Recent Challenges to Video Evidence
Fast Forward: Emerging Trends in Video Evidence
The Importance of Using the Correct Cell Site List
How Forensic Analysts Depart from Science
2021 Video Evidence Training Symposium Hands-On Workshop
Berla iVe Live Community Hangout (April 2021)
Berla iVe Release Webinar (May 2021)
United States Secret Service – San Francisco Field Office Cyber Fraud Task Force (SF – CFTF)   Advanced Persistent Threats: Lessons Learned from the SolarWinds and Microsoft Exchange Server Cyber Incidents
USSS-CFTF - Spies, Soldiers and Hackers – National Security Threats to the United States
USSS-CFTF - Defending Our Environment from Advanced Persistent Threat Actors
USSS-CFTF - Ransomware Investigations and Actionable Intelligence
MW3C: Future of Preserving Digital Evidence
Myths and Realities of Cell Site Coverage Areas (2021)
MW3C Webinar: SQL Survival Series: Part II
Ransomware - Do You Pay It Or Not? - Experts debate the costs and ethics surrounding ransomware payments
Berla iVe Release Webinar (June 2021)
NW3C Webinar: Gain a Deeper Understanding of Digital Video Files
MW3C Webinar: Human Trafficking 101: A Primer for Prosecutors and Investigators
Berla iVe Release Webinar (July 2021)

Expertise Details

Call Detail Records / Cell Site Analysis
➤ Call Detail Record analysis in the criminal justice system provide a wealth of information that can help to identify suspects, in that they can reveal details as to an individual's relationships with associates, communication and behavior patterns, and even location data that can establish the approximate whereabouts of an individual (or at least their phone) during the beginning and possibly the end of the call.

Cell Phone / Mobile Device Forensics
➤ Cell phone and mobile device forensics is a branch of digital forensics relating to recovery of digital evidence or data from a mobile device under forensically sound conditions. Mobile devices can be used to save several types of personal information such as contacts, photos, notes, SMS and MMS messages, etc. Smartphones may additionally contain video, email, web browsing information, location information, and social networking messages and contacts. As mobile device technology advances, the amount and types of data that can be found on a mobile device is constantly

		increasing. Evidence that can be potentially recovered from a mobile phone may come from several different sources, including handset memory, SIM card, and attached memory cards such as SD cards.

Computer Forensics

	➤	Computer forensics is a branch of forensic science which deals with the application of investigative analysis techniques oncomputers in order to retrieve and preserve evidence in a way that is legally admissible. This means that a major aspect of the science of computer forensics lies in the ability of the forensics expert to present findings in a way that is acceptable and usable by a court of law. The goal of computer forensics is the performance of a structured investigation on a computing device to find out either what happened or who was responsible for what happened, while at the same time maintaining a properly documented chain of evidence in a formal report.

Google Location Services Mapping

	➤	Android tablets and mobile phones have the ability to report the device's location to online services, usually with high accuracy if the device has GPS capability turned on. Knowing your location, and tracking your location history is very important to many android applications. For example, a weather widget on your home screen would be more useful if it displayed the weather in your current location, rather than in a pre-set home location. Google Location History, if turned on, tracks the device's location, sometimes at a minute by minute rate, with the best location measurements made from either GPS, known wireless access points, or cell towers in the vicinity. This data is then stored indefinitely on Google servers, and can be downloaded and analyzed.

Vehicle Infotainment / Navigation Systems

	➤	With the proper training, certain digital forensic tools and techniques can be used to perform logical and/or physical acquisitions and analysis of a vehicle's infotainment and telematics system. We can acquire user data from vehicles, and analyze the vast amount of data such as recent destinations, favorite locations, call logs, contact lists, SMS messages, etc., and even the navigation history of everywhere the vehicle has been (depending upon make and model of vehicle). Many systems record events such as when and where a vehicle's lights are turned on, which doors are opened and closed at specific locations, and even where the vehicle is when Bluetooth devices connect. The tools involved interface directly with vehicle systems via specially designed hardware.

GPS Mapping

	➤	GPS is defined as "A system of radio-emitting and -receiving satellites used for determining positions on the earth. The orbiting satellites transmit signals that allow a GPS receiver anywhere on earth to calculate its own location through trilateration. GPS is incorporated in many of our daily objects and serve many purposes in our daily navigation. Drivers use GPS when navigating streets, pedestrians use GPS on mobile devices to navigate walking paths, and GPS devices are being used to monitor human and animal movement. With this data, we can create customizable maps and profiles from GPS data from various devices. Input can be in the form of driving routes, street addresses, or simple GPS coordinates from varying sources such as ankle bracelets, GPS tracking devices, vehicle navigation systems, EXIF data embedded in camera images, social media location metadata, cell phone location data, etc. When used by skilled professionals, GPS provides mapping data of the highest potential accuracy.

Surveillance Video DVR Preservation & Recovery

	➤	Surveillance Video DVR Preservation & Recoveryis a common misconception that once a digital DVR system as "rolled over", old data cannot be recovered. Even when the security DVR says the data you are looking for isn't there, it very well could be. It is true though that traditional computer forensic techniques can fall short with CCTV DVR systems due to the proprietary filesystems and data used. The processes that we use for acquiring video and metadata from CCTV DVRs is a forensically sound manner in the field or in the lab. We can bypass DVR passwords and archaic menus to quickly extract evidence directly from the DVR hard drive. Even if the DVR was toasted in a fire, or destroyed by a subject, if the hard drive works, our process can recover the data. Using traditional methods to export video can take days, if not weeks on some systems. By bypassing the operating system, our process allows us to accomplish the same (and potentially much more) in a matter of hours, not days.

Certifications Details

Certified Vehicle System Forensic Examiner			CVSE	2021 - recert
	➤	This comprehensive certification requires demonstrated proficiency in the analysis and understanding of vehicle data utilizing the iVe Software.		
Certified Vehicle System Forensic Technician			CVST	2021 - recert
	➤	This certification requires demonstrated proficiency in the acquisition of vehicle data utilizing the iVe Hardware Kit.		
Certified Certified Telecommunications Subject Matter Expert			CTSME	2020
	➤	The TCO Certified Telecommunications Subject Matter Expert (CTSME) is the most comprehensive telecom, datacom, networking, wireless, VoIP and SIP training and certification available anywhere. CTSME encompasses four TCO Certifications: CTA, CVA, CWA and CTNS.		

	- CTA, 16 courses covering all major topics in telecom, datacom and networking from POTS to MPLS plus Security. - CVA, 6 courses providing depth on Voice over IP from packetization to SIP trunking. - CWA, 3 courses adding depth on wireless including spectrum, propagation, cellular and mobility, Bluetooth and WiFi. - The internationally-recognized CTNS certification rounds out the package.		
Certified VoIP Analyst		CVA	2020
➤	CVA covers all aspects of Voice over IP, including all the different ways VoIP is implemented, how calls are set up with softswitches and SIP, how voice is packetized and the factors affecting sound quality, connecting to carriers and SIP trunking, and network quality with MPLS, Service Level Agreements and Class of Service. A TCO Certified VoIP Analyst understands the fundamentals, the technologies, the jargon and the buzzwords across the full range of VoIP. This knowledge enables a CVA to stand out from the rest, with broad and deep vendor-agnostic knowledge of VoIP systems and practices.		
NW3C Certified Cyber Crime Investigator		3CI	2020
➤	Available for professionals in both law enforcement and the private sector, this certification attests to the holder's knowledge and demonstrated competence in the detection, response to, and investigation of cyber-crimes and crimes facilitated by online communication, tools, evidence or modular criminality.		
NW3C Certified Cyber Crime Examiner		3CE	2019
➤	Available for professionals in both law enforcement and the private sector, this certification attests to the holder's knowledge of proper digital forensic techniques and best practices for working with digital evidence. Holders of this certification have demonstrated their knowledge of the identification and proper handling of digital evidence; types of digital hardware technologies; common file systems; best practices in forensic imaging; documenting and reporting; and legal considerations.		
Certified Forensic Explorer Examiner			2015,2018,2019
➤	Forensic Explorer is a tool for the preservation, analysis and presentation of electronic evidence. Primary users of this software are law enforcement, government, military and corporate investigations agencies.		
Certified Wireless Analyst		CWA	2019
➤	The CWA certification was developed in partnership with the Telecommunications Certification Organization. TCO Certified Wireless Analyst Certification covers the core technical knowledge needed by those in the wireless business today. A CWA is knowledgeable of the full range of wireless technologies including radio and spectrum fundamentals, mobile communications concepts and network technologies up to 4G LTE, as well as WiFi and other fixed wireless.		
Certified Telecommunications Network Specialist		CTNS	2019
➤	The CTNS certification was developed in partnership with the Telecommunications Certification Organization. It provides a solid foundation of structured knowledge spanning telecom, datacom and networking from traditional telephony through cellular to IP and MPLS networking, understanding the fundamentals, technologies, jargon and buzzwords, and most importantly, the underlying ideas and how it all fits together.		
Cellebrite Certified Physical Analyst (recertification)		CCPA	2014,2019
➤	The Cellebrite Certified Physical Analyst (CCPA) course an advanced level certification which builds on the knowledge and practical skills needed in using UFED Physical Analyzer software to conduct advanced analysis on mobile devices, including advanced search and analysis techniques to verify and validate findings.		
Cellebrite Certified Operator (recertification)		CCO	2014,2019
➤	The Cellebrite Certified Operator (CCO) course is an intermediate level certification program which builds on the concepts from the CMFF course. This course is designed for those participants tasked with extracting data in a forensically sound manner using UFED Touch or UFED 4PC.		
Cellebrite Mobile Forensics Fundamentals (recertification)		CMFF	2019
➤	The CMFF curriculum provides attendees with compulsory digital forensics core knowledge (fundamentals) including: mobile device communication networks, explorations of Android and iOS file systems, extraction methodologies, memory		

	(NAND) functions, and the proper handling of digital evidence for use in administrative, civil, or criminal actions.		
FAA Part 107 Licensed sUAS Pilot		#4198776	2018
NW3C Certified Cyber Crime Examiner		CCCE	2018
	➤ Available for professionals in both law enforcement and the private sector, this certification attests to the holder's knowledge of proper digital forensic techniques and best practices for working with digital evidence. Holders of this certification have demonstrated their knowledge of the identification and proper handling of digital evidence; types of digital hardware technologies; common file systems; best practices in forensic imaging; documenting and reporting; and legal considerations.		
Cellebrite Drone Data Analysis		CDDA	2018
	➤ An advanced level program designed to teach how to recover, analyze and generate reports based on data obtained from unmanned aircraft systems (UAS), also known as drones. Best practices in disassembling a drone to acquire flight data embedded within the device. In addition to the embedded flight data, how to use a UFED Touch2 or UFED 4PC to create forensic images of associated storage media containing photo and video files recorded by onboard or attached cameras. Once the data is acquired, how to analyze the data and to correlate data found in smartphone drone applications with flight data recovered from the device. Overall the certification proves knowledge in Drone Awareness, Legal Guidelines and Terms, sUAS Components, sUAS Extractions, File System Artifacts, and sUAS Application Data.		
DVR Examiner Certified User			2017,2018
	➤ The DVR Examiner User Certification certifies its graduates on how to use DVR Examiner software for the forensic recovery of DVR data and the underlying concepts behind how DVR Examiner works. The certification training involves lecture portions, followed by hands on examples of the concepts presented in the lectures. Only upon successful completion of a written exam and practical tests, will the student be certified.		
Vehicle Forensics Certification		iVe	2014,2018
	➤ The Vehicle Forensics & iVe Certification provides that a certified investigator has the necessary skills to acquire and analyze data from OEM-installed infotainment and telematics systems, and prepare the investigator to qualify as an expert witness and testify in court. This certification shows that the investigator has a solid understanding of vehicle networks and how data is transmitted between the various electronic control units in a vehicle. The certification is focused on OEM-installed infotainment and telematics systems such as Microsoft SYNC™, MyFord Touch™, COMAND™, OnStar™, Uconnect™, ConnectedDrive™, Entune™, Mylink™, IntelliLink™ and CUE™.		
X1 Social Discovery			2017,2018
	➤ Social media evidence is highly relevant to most legal disputes and broadly discoverable, but some challenges lie in evidentiary authentication without best practices technology and processes which X1 helps provide.		
GIAC Certified Forensic Examiner		GCFE	2017
	➤ The GCFE certifies that candidates have the knowledge, skills, and ability to conduct typical incident investigations including e-Discovery, forensic analysis and reporting, evidence acquisition, browser forensics and tracing user and application activities on Windows systems.		
Certified BlackLight Examiner (Macintosh Forensics)		CBE	2014
	➤ The Certified BlackLight Examiner designation is given to students who can pass a BlackLight-specific proficiency test after completion of the BlackLight Tool Training course.		
Blackthorn / GPS Certification		GPS	2014
	➤ Blackthorn is the leading GPS forensics tool used by forensic examiners and investigators for acquiring, examining and analyzing data from aviation, maritime, portable automotive, and handheld GPS devices. Certification holders have shown a comprehensive understanding of how to use Blackthorn and how the Global Positioning System works. The certification includes a practical exercise in which the investigator will be required to apply the techniques of acquiring data from devices, conducting an analysis, and drafting a report. Investigators will have also taken a written exam to obtain Blackthorn Certification.		

Mobile Phone Seizure Certification		MPSC	2013
	➤ The Mobile Phone Seizure Certification Examination identifies those who have successfully passed the examination as proficient in the identification, collection and preservation of mobile devices.		
Certified Cellebrite Advanced Smart Phone Forensic Investigator			2013
EC-Council Certified Ethical Hacker		CEH	2012
	➤ A Certified Ethical Hacker is a skilled professional who understands and knows how to look for weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a malicious hacker, but in a lawful and legitimate manner to assess the security posture of a target system(s). The CEH credential certifies individuals in the specific network security discipline of Ethical Hacking from a vendor-neutral perspective. The Certified Ethical Hacker (CEH) is an intermediate-level credential offered by the International Council of E-Commerce Consultants (EC-Council). It's a must-have for IT professionals pursuing careers in ethical hacking. CEH credential holders possess skills and knowledge on hacking practices in areas such as footprinting and reconnaissance, scanning networks, enumeration, system hacking, Trojans, worms and viruses, sniffers, denial-of-service attacks, social engineering, session hijacking, hacking web servers, wireless networks and web applications, SQL injection, cryptography, penetration testing, evading IDS, firewalls, and honeypots.		
Certified Cellebrite Mobile Phone Forensic Investigator			2012
Computer Hacking Forensic Investigator		CHFI	2011
	➤ Computer hacking forensic investigation is the process of detecting hacking attacks and properly extracting evidence to report the crime and conduct audits to prevent future attacks. The CHFI certification validate the candidate's skills to identify an intruder's footprints and to properly gather the necessary evidence to prosecute in the court of law.		
California Private Investigator License		#27470	2011
	➤ A private detective and investigator searches for clues to gather evidence for court cases or private clients. They interview people, verify information, conduct surveillance, find missing persons, and gather vital facts for cases. Depending on their area of expertise, they might be hired to investigate computer crimes or corporate to help solve a case.		
CompTIA Security+ Certification		Security+	2010
	➤ CompTIA Security+ is the certification globally trusted to validate foundational, vendor-neutral IT security knowledge and skills. As a benchmark for best practices in IT security, this certification covers the essential principles for network security and risk management. CompTIA Security+ meets the ISO 17024 standard and is approved by U.S. Department of Defense to fulfill Directive 8570.01-M requirements.		
Certified Information Systems Security Professional		CISSP	2010
	➤ The CISSP designation is a globally recognized, vendor-neutral standard for attesting to an IT security professional's technical skills and experience in implementing and managing a security program. The CISSP is a certification sought by IT professionals with job titles such as security auditor, security systems engineer, security architect and chief information security officer, among others. To become a CISSP, the candidate must pass a six-hour long exam, consisting of 250 questions in multiple choice and "advanced innovative" formats which tests the candidate's knowledge and understanding in eight domains drawn from the more extensive (ISC)2 Common Body of Knowledge: security and risk management, asset security, security engineering, communications and network security, identity and access management, security assessment and testing, security operations and software development security. Candidates are required to have a minimum of five years full-time experience in at least two of the eight domains. To maintain the CISSP certification, candidates are required to earn at least 40 continuing professional education credits each year.		
Certified Computer Examiner		CCE	2010
	➤ The CCE certification is widely considered to be the most prestigious non-vendor specific forensic certification available. This certification is available to all examiners working publically or privately. The foundation of this certification maintains a fair, uncompromised process for certifying the competency of forensic computer examiners and sets high forensic and ethical standards for forensic computer examiners.		
EnCase Certified Examiner		EnCE	2009

➤	The EnCase® Certified Examiner(EnCE®) program certifies both public and private sector professionals in the use of Guidance Software's EnCase computer forensic software. EnCE certification acknowledges that professionals have mastered computer investigation methodology as well as the use of EnCase software during complex computer examinations. Recognized by both the law enforcement and corporate communities as a symbol of in-depth computer forensics knowledge, EnCE certification illustrates that an investigator is a skilled computer examiner.	

Professional Memberships, Organizations, & Task Forces Details

Los Angeles FBI Citizens' Academy Alumni Association

➤ The Federal Bureau of Investigation recognizes the importance of forging strong alliances with local communities and maintaining collaborative relationships with community leaders. To accomplish this directive, the FBI developed and implemented the FBI Citizens Academy program. Delivered throughout the country, the FBI Citizens Academy program is an 10 week intensive, interactive class specifically designed to educate civilians about the inner working, roles and responsibilities of the FBI Agency, and interface how local communities and citizens play a key role in the Agency's successful operation.

Delivered in an an intimate classroom setting, select students cover a curriculum that includes counter terrorism, white collar crimes, organized crime, cyber crimes, civil rights and other FBI priorities. All classes are taught by the Special Agent in Charge (SAC), Assistant Special Agents in Charge (ASAC's), Supervisory Special Agents (SSA's), and Field Special Agents (SA's). Participants also partake in a live fire day at the range where they learn about firearms and weapons safety.

Each member of the FBI Los Angeles Citizens Academy Association is a graduate of the 10-week FBI Los Angeles Citizens Academy

Federal Bureau of Investigation Infragard

➤ InfraGard is a partnership between the FBI and members of the private sector. The InfraGard program provides a vehicle for seamless public-private collaboration with government that expedites the timely exchange of information and promotes mutual learning opportunities relevant to the protection of Critical Infrastructure. With thousands of vetted members nationally, InfraGard's membership includes business executives, entrepreneurs, military and government officials, computer professionals, academia and state and local law enforcement; each dedicated to contributing industry specific insight and advancing national security.

United States Secret Service/Department of Homeland Security: Electronic Crime Task Force, Los Angeles

➤ Computers and other electronic devices are now the facilitators of criminal activity or the target of such, compelling the involvement of the Secret Service in combating cybercrime. The perpetrators involved in the exploitation of such technology range from traditional fraud artists to violent criminals - all of whom recognize new opportunities to expand and diversify their criminal portfolio.

To bring these perpetrators to justice, the Secret Service developed a new body, the Electronic Crimes Task Force (ECTF), to increase the resources, skills and vision by which state, local, and federal law enforcement agencies team with prosecutors, private industry and academia to fully maximize what each has to offer in an effort to combat criminal activity. The common purpose is the prevention, detection, mitigation, and aggressive investigation of attacks on the nation's financial and critical infrastructures.

International Association of Computer Investigative Specialists (IACIS)

➤ The International Association of Computer Investigative Specialists - IACIS is an international volunteer non-profit corporation composed mostly of law enforcement professionals dedicated to education in the field of forensic computer science. IACIS members represent Federal, State, Local and International Law Enforcement professionals. IACIS members have been trained in the forensic science of seizing and processing computer systems.
IACIS offers professional training in the seizure and processing computer systems. This training incorporates forensic methods for searching seized computers in accordance with the rules of evidence and laws of search and seizure. This includes evidence that has been hidden, concealed, encrypted, protected with passwords, software time-bombs, trojan horses. IACIS provides an opportunity to network with other law enforcement officers trained in computer forensics, to share and learn from other experiences, and develop a pool of expert assistance to draw upon.
IACIS is accredited by The Forensic Specialties Accreditation Board ("FSAB") - an independent board established to accredit professional bodies that certify forensic scientists and other forensic specialties

International Association of Computer Investigative Specialists (IACIS) Research and Development Subcommittee

➤ Current Member of the IACIS R&D subcommittee.
The Research and Development Subcommittee of the International Association of Computer Investigative Specialists will be a crucial support service for IACIS and the broader digital forensics community by being a comprehensive knowledge base for the field of digital forensics, through collating and verifying existing digital forensics knowledge, and conducting cutting edge, and relevant research, to advance digital forensics knowledge.

The Research and Development Subcommittee of the International Association of Computer Investigative Specialists supports IACIS in a number of manners. The first is through consolidating the digital forensics knowledge on an ongoing basis within the institution, so that our institutional knowledge is preserved and maintained for the benefit of our members. The second is by providing opportunities for digital forensics research that meets acceptable scientific standards for our members to grow the digital forensics knowledge base. The third is to leverage of our research capacity to develop actionable business intelligence for the IACIS leadership, to assist in the ongoing management of the organization.

International Society of Forensic Computer Examiners (ISFCE)

➤ The purpose of the ISFCE is to:
- Professionalize and further the science of digital forensics
- Provide a fair, vendor neutral, uncompromised process for certifying forensic computer examiners
- Set high forensic and ethical standards
- Conduct research and development into new and emerging technologies and methods in the science of digital forensics

Institute of Electrical and Electronics Engineers (IEEE)

➤ IEEE and its members inspire a global community to innovate for a better tomorrow through highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing, and technology information around the globe.

IEEE - Aerospace and Electronic Systems Society

➤ Interests cover the organization, systems engineering, design, development, integration, and operation of complex systems for space, air, ocean, or ground environments. These systems include but are not limited to navigation, avionics, mobile electric power and electronics, radar, sonar, telemetry, military, law-enforcement, automatic test, simulators, and command and control.

IEEE - Antennas and Propagation Society

➤ Interests include antenna analysis, design, development, measurement, and testing; radiation, propagation, and the interaction of electromagnetic waves with discrete and continuous media; and applications and systems pertinent to antennas, propagation, and sensing, such as applied optics, millimeter and sub-millimeter-wave techniques, antenna signal processing and control, medical applications, radio astronomy, and propagation and radiation aspects of terrestrial and space-based communication.

IEEE – Computer Society

➤ The IEEE Computer Society is the world's leading membership organization dedicated to computer science and technology. Serving more than 60,000 members, the IEEE Computer Society is the trusted information, networking, and career-development source for a global community of technology leaders that includes researchers, educators, software engineers, IT professionals, employers, and students.

IEEE – Vehicular Technology Society

➤ The IEEE Vehicular Technology Society concerns itself with land, airborne and maritime mobile services; portable commercial and citizen's communications services; vehicular electrotechnology, equipment and systems of the automotive industry; traction power, signals, communications and control systems for mass transit and railroads.

IEEE – Standards Association (IEEE-SA)

➤ Standards drive technological innovation, fuel growth of global markets, expand consumer choice, support interoperability and help protect the health and public safety of workers and the general public.

ASTM International: Committee E30 on Forensic Sciences

➤ ASTM International, formerly known as American Society for Testing and Materials, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.

ASTM Committee E30 on Forensic Sciences was formed in 1970. The Committee has jurisdiction of 51 standards, published in the Annual Book of ASTM Standards, and has 10 subcommittees that maintain jurisdiction over these standards. The Committee Scope is the promotion of knowledge and development (test methods, guides, practices, classifications, and terminology) for, but not limited to, definitions, methods, and standard reference materials for the collection, preservation, scientific examination, preparation and reports relating to physical evidence for forensic purposes and the general practice of forensic science.

ASTM International: Subcommittee E30.11 - Interdisciplinary Forensic Science Standards

➤ The Interdisciplinary Forensic Science Standards subcommittee is responsible for standards such as:
- E620-18 Standard Practice for Reporting Opinions of Scientific or Technical Experts
- E678-07(2013) Standard Practice for Evaluation of Scientific or Technical Data
- E860-07(2013)e2 Standard Practice for Examining And Preparing Items That May Become Involved In Criminal or Civil Litigation
- WK23009 Guide for Case Review of Forensic Examinations

	○	WK40039 Guide for Forensic Science Training, Continuing Education, and Professional Development Programs

ASTM International: Subcommittee E30.12 – Digital and Multimedia Evidence

	➤	The Digital and Multimedia Evidence subcommittee is responsible for standards such as:
	○	E2678-09(2014) Standard Guide for Education and Training in Computer Forensics
	○	E2763-10 Standard Practice for Computer Forensics
	○	E2916-13 Standard Terminology for Digital and Multimedia Evidence Examination
	○	E3046-15 Standard Guide for Core Competencies for Mobile Phone Forensics
	○	WK61709 Standard Practice for Data Retrieval from Digital CCTV System
	○	WK63926 Repair and Recovery of Damaged Audio Media

International Information Systems Security Certification Consortium (ISC)²

	➤	(ISC)² is the World's Leading Cybersecurity and IT Security Professional Organization. The mission of the Consortium is to contribute to the health of the information landscape by offering gold-standard certifications while maintaining a body of critical knowledge, including principles and terms that help define global industry standards.

Espionage Research Institute International (ERII)

	➤	The mission of the Espionage Research Institute International is to educate and advance best practices in the counterespionage / counterintelligence & TSCM community through excellence, applied learning, and research that examines issues of strategic importance to the sector.

Association of Court Panel Investigators

	➤	Helping indigent defendants receive a fair trial and ensuring they get what they need and deserve for their defense.

California Attorneys for Criminal Justice (CACJ)

	➤	CACJ is the country's largest statewide organization of criminal defense lawyers and allied professionals. The specific purposes of CACJ are:
	○	to defend the rights of persons as guaranteed by the United States Constitution, the Constitution of the State of California and other applicable law;
	○	to preserve due process and equal protection of the law for the benefit of all persons; to enhance the ability of its members to discharge their professional responsibilities through educational programs, publications and mutual assistance; and
	○	to protect and foster the independence of the criminal defense lawyer and to improve the quality of the administration of criminal law.

National Defender Investigator Association (NDIA)

		The National Defender Investigator Association (NDIA) is the only international organization to represent a constituency dedicated solely to the investigative arm of indigent defense

International Association of Cyber & Economic Crime Professionals (IACECP)

		The IACECP strengthens its members' ability to combat cyber and economic crime through professional credentialing that engages innovative and robust learning platforms to certify participants in several specialized fields. Acquired skill sets are reinforced through the active exchange of ideas and resources among IACECP's international membership. For four decades, the National White Collar Crime Center (NW3C)'s premier training and technical support has enabled all spectrums of law enforcement to prevent, investigate, and prosecute cyber and economic crimes. The IACECP's resources and solutions adhere to NW3C's established high standards of integrity and quality.

National Association of Criminal Defense Lawyers

		The National Association of Criminal Defense Lawyers (NACDL) encourages, at all levels of federal, state and local government, a rational and humane criminal justice policy for America -- one that promotes fairness for all; due process for even the least among us who may be accused of wrongdoing; compassion for witnesses and victims of crime; and just punishment for the guilty. Such a policy respects cherished civil rights and liberties that are fundamental to our democracy. Citizens have a right to expect privacy in their homes, vehicles, and communications; a right not to be deprived of their liberty or property without due process of law; and a right to consult counsel of their choice without it being used against them. America fought for and declared its independence to preserve these rights, and our Founding Fathers inscribed them into the Constitution.

The Association of Digital Forensics, Security, and Law (ADFSL)

		The ADFSL focus on research and curriculum is of value to both academic and practitioner audiences. The primary audience includes those individuals who are interested in developing curriculum and teaching methods as well as conducting research related to the consideration of digital forensics, security and law. The audience also includes practitioners who consider digital forensics to be a resource that needs to be understood, taught and developed. Such practitioners reside in a broad spectrum of functions, including information technology, security, government and law.

The mission of the ADFSL is to provide an avenue for academics and practitioners to share academic needs, experience and research in the areas of digital forensics, security and law and in particular the intersection of those areas. Two avenues that the association will focus on are a quarterly journal and an annual conference.

ΑΦΣ National Criminal Justice Honors Society

Alpha Phi Sigma recognizes academic excellence of Undergraduate and Graduate students of Criminal Justice, as well as Juris Doctorate students.

The goals of Alpha Phi Sigma are to honor and promote academic excellence, community service, educational leadership, and unity.

Alpha Phi Sigma is the only Criminal Justice Honor Society which is a certified member of the Association of College Honor Societies and affiliated with the Academy of Criminal Justice Sciences.

Association of Certified Fraud Examiners (ACFE)

The ACFE is the world's largest anti-fraud organization and premier provider of anti-fraud training and education. Together with more than 80,000 members, the ACFE is reducing business fraud worldwide and inspiring public confidence in the integrity and objectivity within the profession.

Criminal Courts Bar Association

The Criminal Courts Bar Association is a county wide organization of criminal defense lawyers in both public and private practice, law students, allied professionals, prosecutors, judges and private individuals. The goals of the Criminal Courts Bar Association are the protection of individual rights and liberties, improvement of the Criminal Justice System, enhancement of the Criminal Law Practitioners, and the continuing education of the Criminal Defense Bar.

International Crime Scene Investigators Association

The International Crime Scene Investigators Association was created to assist law enforcement personnel and others who are involved in the processing of crime scenes. The discipline of crime scene processing is such a unique field in forensic science and law enforcement that this discipline needed its own organization. Crime scene processing is a multidisciplinary function. Crime scene processors, must have a working knowledge of all the disciplines in forensic science and apply that knowledge to the documentation of the crime scene.

American Bar Association

The ABA provides law school accreditation, continuing legal education, information about the law, programs to assist lawyers and judges in their work, and initiatives to improve the legal system for the public. It "provides law school accreditation, continuing legal education, information about the law, programs to assist lawyers and judges in their work, and initiatives to improve the legal system for the public.

Los Angeles County Bar Association

San Bernardino County Bar Association

Armed Forces Communications & Electronic Association (AFCEA)

AFCEA is a professional association that connects innovative people, great ideas and vital solutions to advance global security.

This enables military, government, industry and academia to align technology and strategy to meet the needs of those who serve.

AFCEA provides a forum for military, government and industry communities to collaborate so that technology and strategy align with the needs of those who serve. Through its established worldwide network of individual members, chapters and member organizations across the globe, AFCEA has led the ethical exchange of information for nearly 70 years, with roots that trace back to the U.S. Civil War.

Law Enforcement and Emergency Services Video Association International, Inc. (LEVA)

Committed to provide advanced training and certification in the science of forensic video analysis. LEVA serves as a key resource providing opportunities for professional development through quality training and informational exchange.

Airborne Law Enforcement Association (ALEA)

To support, promote and advance the safe and effective utilization of aircraft by governmental agencies in support of public safety missions through training, networking, advocacy and educational programs.